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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,276	10/26/2000	Manoj Kumar Singhal	7416/78599	4589
24628	7590	11/05/2003	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			OPSASNICK, MICHAEL N	
		ART UNIT		PAPER NUMBER
		2655		8

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	SINGHAL ET AL.
Examiner	Art Unit
Michael N. Opsasnick	2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 26 October 2000.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 28-79 is/are withdrawn from consideration.
- 5) Claim(s) 28 is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) 9-27 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's election with traverse of Invention I in Paper No. 7 is acknowledged. The traversal is on the ground(s) that Invention II and III is related to encoding and thereby not restrictable. This is not found persuasive because Invention II and III are related to invention I as subcombinations and combination/subcombination, respectively; as presented in the office action mailed on 3/20/2003.

The requirement is still deemed proper and is therefore made FINAL.

2. For clarification purposes, claims 1-28 are pending in the application, claims 29-57,67-76 are non-elected, and claims 58-66,77-79 are withdrawn from consideration.

***Allowable Subject Matter***

3. Claim 28 is allowable over the prior art of record.

4. Claims 9-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2 recites the limitation "the determining step" in claim 2, line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yeldener (5890108).

As per claim 1, Yeldener (5890108) teaches:

"dividing the signal into frames....spectrum" as generating spectrums for previous and current frames (Col. 12 lines 32-45)

"selecting...first frame.....second frame" as finding plurality of pitches (col. 12 lines 44-50)

"calculating....second frame" as calculating pitch error throughout the frames (col. 11 lines 38-46)

“selecting a path....basing a pitch estimate....using the pitch estimate....process the signal” as calculating, selecting, and using the best calculated pitch (col. 11 line 59 – col. 12 line 15).

As per claim 2, Yeldener (5890108) teaches:

“determining step.....spectra” as comparing the synthetic and original spectra to fine tune the pitch estimate (col. 13 lines 12-40)

As per claim 3 and 4, Yeldener (5890108) teaches previous, current, and future frames ((col. 12 lines 44-50; col. 11 lines 38-46);

As per claim 5, Yeldener (5890108) teaches multiple pitch candidates (col. 10 lines 39-65)

As per claim 6,7, Yeldener (5890108) teaches a cumulative error function and choosing the lowest error rate (col. 11 lines 10-45)

As per claim 8, Yeldener (5890108) teaches calculating an error function between the original and synthesized spectra (col. 15 lines 14-53).

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
**or faxed to:**  
(703) 872 9314,  
(for informal or draft communications, please label "PROPOSED" or "DRAFT")  
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

mno  
10/29/2003

*Doris To* 10/31/03  
DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600